OFFICE OF RESEARCH AND DEVELOPMENT SUPERFUND AND TECHNOLOGY LIAISON (STL) REGION 9 NEWSLETTER

Summer 2008, Edition 44

Welcome to the Summer '08 edition of the STL Newsletter! As usual, a number of new and interesting resources have been released. By compiling them into this newsletter, I've attempted to bring some order to the "firehose" of information that we all face! Hopefully, it will be as useful for you as it is for me. I've also included some short, edited pieces about new technologies, as well as recent meetings and conferences that I felt would be useful. One of the most interesting was this year's NARPM conference (National Association of Remedial Project Managers), held in early July in Portland, OR. I've provided a quick summary of the many very useful sessions from that annual meeting. Of course, all presentations have been archived online. Also, I've included two pieces about biologically-based remedial technologies (permeable mulch biowalls and an enhanced bioremediation technique that uses encapsulated sodium percarbonate). If the enhancements are legal, I would encourage you to use them! (Unlike at the Tour de France....what a shame....again!). Read about both of these technologies below.

Remember, that as an EPA Superfund or RCRA staffer, you can access ORD's Tech Support Centers through me or directly, if you choose. They continue to work very hard to give you the support that you might not be able to get from your regional tech support or contractual expertise. Please continue to consider them for your technical needs. You can read more about these various services here: http://intranet.epa.gov/ospintra/scienceportal/htm/techsupport.htm#hstl (Sorry, this is an EPA intranet page.)

I hope you enjoy this quarter's newsletter!

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ORD Superfund and Technology Liaison
415-972-3054

Summer 2008 Edition of the Region 9 STL Newsletter:

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NATIONAL NEWS

New Tools and Technologies

AFCEE Releases Protocol for Enhanced Anaerobic Bioremediation Using Permeable Mulch Biowalls and Bioreactors

(Edited from AFCEE Technology Transfer Newsletter, dated 6/18/08)

Permeable mulch biowalls are an increasingly employed approach to applying enhanced *in situ* anaerobic bioremediation. A biowall trench physically cuts through and removes a portion of the aquifer matrix, allowing for uniform distribution of substrate and contact with contaminated groundwater flowing through the biowall treatment zone. Biowall substrates are typically low cost materials (*e.g.*, mulch, compost) and common construction materials (*e.g.*, sand, gravel) are used to prevent compaction and maintain permeability. Biowall materials may be modified to include amendments to stimulate

both biotic and abiotic degradation processes, allowing the practitioner to optimize biowall performance based on the type of contaminant(s) present and the desired degradation pathway(s) to be stimulated. The technology may also be applied in source areas or to capture "deeper" plumes in an *in situ* bioreactor configuration using recirculation of groundwater.

Permeable mulch biowalls and *in situ* bioreactors hold great promise as a remedy for shallow groundwater contaminant plumes and some source areas. This technical protocol has been prepared by the AFCEE to provide guidance to AFCEE and their DoD technology-transition partners on the evaluation, design, and implementation of permeable mulch biowalls and bioreactors for enhanced *in situ* bioremediation of contaminants subject to anaerobic transformation in groundwater. Download at: http://www.afcee.af.mil/resources/technologytransfer/programsandinitiatives/enhancedinsituanaerobicbioremediation/resources/index.asp

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A More Effective Remediation for Subsurface Pollutants

(Edited from NRMRL News, June 3, 2008)

Wherever subsurface soils and ground water become contaminated with pollutants, bioremediation can be an effective cleanup technology. Because the process uses microorganisms to break down contaminants into nontoxic elements, it is an attractive alternative to hazardous chemical treatments. But bioremediation performance can be limited (1) wherever the contaminated area is not readily accessible and (2) in the case of aerobic bioremediation using aerobic microorganisms (who need oxygen to live), when the oxygen supply is difficult to deliver in tight soils. To address these limitations, EPA researchers developed an advanced hydraulic fracturing technology that effectively accesses subsoil contaminants without excavation. Then they controlled the oxygen supply with the addition of an encapsulated sodium percarbonate called Solid (or Slow-releasing) Oxygen Source (SOS).

Background

In the United States, the remediation industry is a multibillion dollar enterprise. Cleaning up fuel-spill contaminants such as toluene and ethylbenzene, for example, has generated a variety of treatment technologies. Bioremediation is an attractive alternative to many conventional chemical treatments because it relies on the natural process of degradation provided by microorganisms. To overcome some of the barriers to effective biodegradation in hard-to-access sites, EPA soil scientists adapted a method of hydraulic fracturing used in the oil-drilling industry. After drilling a hole into the contaminated area, pressurized water is used to gently separate the subsurface layers. Contaminant-degrading microorganisms can then be introduced into the fractures.

Because quicker-degrading aerobic microorganisms require oxygen to do their work of digesting contaminants, standard aerobic bioremediation methods introduce oxygen,

either as air or as oxygenated water. However, both of these approaches usually require continual expensive energy, quickly lose oxygen, or kill off beneficial bacteria if the oxygen concentrations are too high. To correct this, EPA researchers developed SOS to provide a constant and controlled release of oxygen through the treatment zone.

In a 22-month test at a Montana site where soil and ground water were contaminated with fuel additives methyl-tertiary butyl ether (MTBE) and benzene, toluene, ethylbenzene, and xylene (BTEX), test results showed 85 percent reductions of MTBE and 99.7 percent reductions of BTEX. The study showed that the use of SOS stimulated more contaminant reduction than did conventionally supplied oxygen methods.

Combining hydraulic fracturing with the SOS process offers many advantages over standard bioremediation methods. It is a controlled, long-term treatment that can even degrade contaminants in new releases. Costs of operation and energy use are reduced because surface pumps or meters are not required. The process does not require excavation, eliminating exposure concerns and the risk of spreading pollutants. Additional oxygen can be always be added with the addition of another fracture called a "compound fracture."

With growing concern over the use of hazardous remediation processes, bioremediation is expected to increase in importance in the United States and worldwide. The patented hydraulic fracturing SOS process will add an effective and environmentally friendly technology to the array of bioremediation treatment options.

Visit the U.S. Patent Office record for a complete description and discussion of the SOS method:
http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1&u=/netahtml/PTO/srchnum.htm&r=1&f=G&l=50&s1=7252986.PN.&OS=PN/7252986&RS=PN/7252986

Contact Cindy Kirchmer (Office of Public Affairs, 513-569-7737) or the inventors of the technology, Wendy Davis-Hoover (NRMRL, 513-569-7206) and Steve Vesper (NERL, 513-569-7367) for more information.

The RETAN (Regional Environmental Technology Advocacy Network): EPA's Involvement in Technology

(This section describes a recent effort that EPA's Office of the Science Advisor has begun to promote a more effective and efficient use of innovative environmental technologies at EPA. It was edited from the Draft "RTA" - Regional Technology Advocate - Handbook, dated December, 2007.)

Since EPA's inception, technology has been central to achieving its goals. Every Agency program has a technology dimension and has had huge successes; using technology has been one of EPA's core competencies. With an increasingly global environment, it is

essential that we work with newly industrializing countries such as China to develop and utilize the most appropriate environmental technologies.

After more than 30 years of success upon success in applying technology to meet widescale environmental and public health needs, we are entering a new era. We are addressing new types of environmental problems by engaging new sets of tools, a new generation of workers who have new sets of skills, new types of voluntary programs, and a renewed emphasis on environmental results.

Our outside advisors and our internal councils have concluded that there are a need and an opportunity for us to more fully and cost-effectively use technology to solve environmental problems. As we implement the Administrator's commitment to upgrade our technology planning and utilization capabilities, we must more fully engage both our managers at every level and outside parties who have a stake in or a resource that affects the selection of problems and of solutions.

The Administrator is asking all Offices, Regions, and Programs to identify their most pressing environmental problems for which new and innovative technology is viewed as critical to achieving success or to providing more cost-effective options. We must do this on a regular basis. There are many examples of problems that one or more Regions and Program Offices want to address:

• Energy-related issues—e.g., waste-to-energy, using biomass as a fuel, and energy efficiency.
• Structurally embedded pollutants—e.g., lead paint and asbestos abatement.
• Animal and animal waste issues—e.g., CAFOs, agricultural run-off, and prions.
• Ports—e.g., pollution detection, control, and cleanup.
• Aging water and wastewater infrastructure—e.g., technologies to better assess the condition of the infrastructure and meet water quality goals.
• Diesel engines—e.g., retrofit technology, anti-idling alternatives, and cleaner fuels.
• Detection and monitoring techniques—e.g., for biological and chemical agents and for beaches and islands.
• Water quality—e.g., controlling nutrient loadings and achieving nitrogen and phosphorous reductions.
• Groundwater cleanup—e.g., DNAPLs.

The next step in the process is to engage our technology development and deployment capabilities in the Program Offices, the Regional Offices, the Research Office, and with outside parties to work together to identify, demonstrate, and verify the performance of appropriate technologies. We then must aggressively push to get these technologies into use by employing every mechanism we have in our arsenal—e.g., strong communication, incentive programs, award programs, and partnerships with other agencies as well as the venture capital community and finance companies to achieve commercialization and utilization.

EPA's New Technology Infrastructure

In December 2006 the Administrator responded to the recommendations in the first NACEPT Subcommittee report (see Appendix). He committed to creating a new EPA technology infrastructure with four main elements. The Administrator committed to:

• Establish a Senior Environmental Technology Officer (SETO) who will be the focal point for key activities recommended in the NACEPT report like establishing priorities, chairing the ETC, facilitating cross-agency coordination and information sharing, working with the business community and other stakeholders, and developing metrics for measuring effectiveness.

• Establish the Environmental Technology Council (ETC) as a core Agency activity with more senior-level membership accountable for results.

• Establish a Regional Environmental Technology Advocacy Network (RETAN) comprised of a technology advocate in each region to identify opportunities to use technology to achieve better results, share information within the Agency and with stakeholders, serve as liaison with technology programs across the Agency, and serve as member of the ETC.

• Create an Environmental Technology Verification and Assessment Staff (ETVAS) coordinated by the National Risk Management Research Laboratory to provide enhanced technology support to the SETO and the rest of the Agency on issues like technology verifications, state-of-the-art assessments, technology development collaborations, and encouraging sustainability.

Environmental Technology
ETOP
Opportunities Portal

To assist the RETAN and anyone who is working in the environmental technologies field (developers, users, regulators), ORD established an environmental technology Internet portal—the Environmental Technology Opportunities Portal (ETOP) – found here: http://www.epa.gov/etop/. This portal is designed to:

- Promote programs that foster development of new cost-effective environmental technologies
- Relay existing EPA environmental technology information (such as best available technologies for air, water and waste treatment and control).

So, here we are 1.5 years later, and this structure discussed above is now in place. For more information about the RETAN or ETOP, please contact Mike Gill (415-947-3054) or Brenda Bettencourt (510-412-2311), who presently act as the "Regional Technology Advocates" for Region 9.

NARPM Conference Summary, Portland, OR

From July 7-11, 2008, the 18th annual National Association of Remedial Project Managers (NARPM) conference was held in Portland, Oregon. It was certainly a success, as this conference offered multi-track training to over 400 participants on a myriad of topics. Below, I've outlined only a fraction of the sessions that were offered.

Asbestos
Beneficial Use of Mining and Mineral Processing Waste
Groundwater / Surface Water Interaction
DNAPL Source Zone Treatment
Nanotechnology: Practical Considerations for Use in Groundwater Treatment
Evaluation at Capture Zones at Pump and Treat Systems
Contracts Training
Permeable Reactive Zones Panel Session
Media Training
Green Remediation: Opening the Door to Field Use

For complete access to all of the presentations, go to the NARPM website, http://www.epanarpm.org/2008/home.htm , and then click "NARPM Conference Agenda" on the top left. This will give you access to all available powerpoints .

Engineering Forum Update

During the July NARPM meeting described above, the three Tech Support Project Forums also met for their individual business sessions. These business sessions happen semi-annually for the Forums, with one of the two always meeting during NARPM. The Forums consist of the Engineering, Groundwater, and Federal Facilities Forums. As a co-chair, I wanted to give you a quick update on the proceedings from the Engineering Forum (EF).

The EF continues to work on assisting with the production of a number of documents, many of which are very close to publication. These include papers on the treatment of oxygenates, the treatment of PCBs, and mitigation strategies at vapor intrusion sites. These papers are planned for release in the coming months. For more on the papers the EF has already published, please see the following website: http://www.epa.gov/tio/tsp/engforum.htm .

Along with the Office of Superfund Remediation and Technology Innovation (OSRTI), the EF played a big part in putting on two sessions at this NARPM meeting, both the Green Remediation and Permeable Reactive Zones sessions. The EF also scoped out some future work in the green remediation field, including some possible online green remediation training. We have completed an EF Brochure, soon to be posted on the EF website, as well as a new Strategic Plan. These were both put together in the past couple of months by the membership. Finally, congratulations are in order for Hilary Thornton, Region 3, who was voted in as the newest co-chair to the EF! He joins Gary Miller (Region 6) and me, Mike Gill (Region 9), who are serving rotating 2 year terms as co-chairs. And thanks go to Jon Bornholm (Region 4), our out-going co-chair.

Of course, the other Forums also did a lot of work at NARPM as well, putting on training and holding their own business sessions. You can find out more on all the forums at this address: http://www.epa.gov/tio/tsp/. If you are interested in joining the Engineering, Groundwater or Federal Facilities Forum, please contact one of the co-chairs.

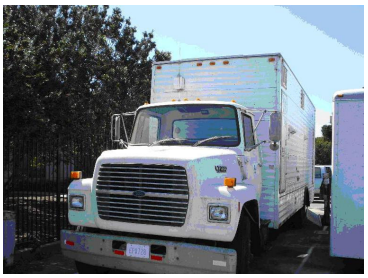
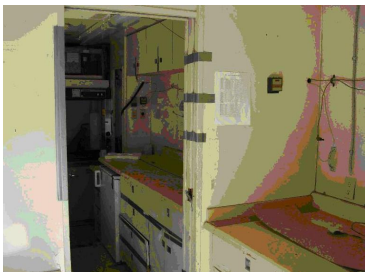
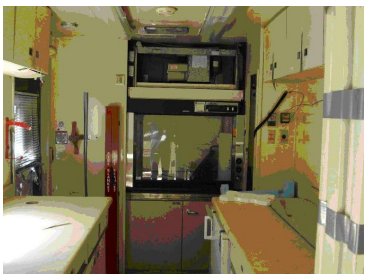
Engineering Forum	Groundwater Forum	Federal Facilities Forum
Mike Gill	Luanne Vanderpool	Jim Keifer
Gary Miller	Kay Wischkaemper	Jim Ingrisano
Hilary Thornton		Ginny Lombardo

LOCAL NEWS

To Site Project Managers and Project Officers... TAKE THIS MOBILE LAB, PLEASE!

The ESAT Contractor at the Region 9 Laboratory is retiring a 1990 Ford/SEE LN7000 mobile laboratory equipped with a diesel engine (35,000 miles) to make room for a new vehicle. The mobile laboratory was used for on-site support primarily at Superfund sites. The vehicle requires a Commercial Class B license (with air brake endorsement) to

operate, and doesn't have headrests or shoulder restraints. There is no charge for the mobile laboratory, but some work is needed in the labspace. It must be relocated soon, as the plan is to excess it by the end of August, 2008.

Specifications

Chassis:	Ford Model LN7000
Wheelbase:	258" WB, 192"CA, 114" AF, 400.4 "OAL
Max GVW Rating:	21,200 lbs
Front Axle:	10,000/lbs steel
Rear Axle:	23,000/lbs Rockwell RS-23-180 single speed, (4.89) ratio
Suspension, Rear:	Newar ARD 123-6 Air Ride (23,000 lb) capacity
Transmission:	Automatic, Allison MT643 4-Speed
Engine:	Ford Diesel (50 State) 6.6L 170HP @ 2600 RPM
Fuel Tank:	Dual 50 Gallon steel D-Style
Electrical:	Alternator, Motorcraft 75 amp, 1125 watt Battery, Two 12v 535CCA (71 AMP-HR) Starter Delco type 37MT 12v

After this offer to Superfund, all takers will be considered. Please contact Greg Nagle at 510.412.2334.

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DATEBOOK - UPCOMING EVENTS

This section of the newsletter is an attempt to present both EPA and non-EPA sponsored environmental technology related courses and conferences. But being a quarterly publication, it is impossible for this newsletter to always be up-to-date. For the most pertinent information on upcoming EPA courses, see http://www.trainex.org. These events are listed chronologically.

Many of the entries in these newsletters are from TIO's "TechDirect" emails (thank you Jeff Heimerman!). TechDirect is also tied to the clu-in webpage, which lists many training opportunities, including the following:

Announcement of Courses/Conferences:	http://clu-in.org/courses
Archive of Courses:	http://clu-in.org/live/archive.cfm
Internet Training	http://www.cluin.org/training

ITRC Internet Based Training

These are typically 1-2 hour online courses where the participant follows a webpage presentation, while listening on the phone. Check - http://www.itrcweb.org or http://www.clu-in.org/studio/seminar.cfm to verify times and registration, unless other websites are mentioned below.

July 28 - **Demystifying the DMA (Demonstration of Method Applicability)**
http://clu-in.org/studio

July 29 - **Vapor Intrusion Pathway: A Practical Guideline**
2:00 p.m. - 4:15 p.m. EASTERN Time

August 5 - **Decontamination and Decommissioning of Radiologically-Contaminated Facilities**
2:00 p.m. - 4:15 p.m. EASTERN TIME

August 5 - **West Coast Forum on Climate Change, Waste Prevention, Recovery and Disposal**
http://www.trainex.org/offeringslist.cfm?courseid=798&all=yes

August 26 - **Performance-based Environmental Management**
2:00 p.m. - 4:15 p.m. EASTERN TIME

The Groundwater Pollution and Hydrology Course (Princeton)
July 28-Aug 1, 2008
San Francisco, CA
http://princeton-groundwater.com/pollution-and-hydrology-course.htm

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Nondetects And Data Analysis
July 29-30, 2008
Seattle, WA (Region 10)
http://www.trainex.org/classdetails.cfm?courseid=774&classid=3606

Long Term Monitoring Optimization
July 30-31, 2008
San Francisco, CA (Region 9 office)
http://www.trainex.org/classdetails.cfm?courseid=379&classid=3646

Fifth Annual EPA Drinking Water Workshop on Treatment and Distribution System Compliance Challenges
August 5–7, 2008
Cincinnati, OH
http://www.epa.gov/ORD/NRMRL/wswrd/dw/waterworkshop.html

The 24th Annual National Environmental Monitoring Conference
Aug 11-15, 2008
Washington, DC
http://www.nemc.us/nemc_2008/index.html

GRA Climate Change Symposium: Implications for California Groundwater Management
August 13, 2008
Sacramento, CA
http://www.grac.org/climate.asp

American Chemical Society Fall Meeting
August 17-21, 2008
Philadelphia, PA
http://portal.acs.org/portal/acs/corg/content?_nfpb=true&_pageLabel=PP_TRANSITION_MAIN&node_id=859&use_sec=false&sec_url_var=region1

28th International Symposium on Halogenated Persistent Organic Pollutants (Dioxin 2008)
August 17-22, 2008
Birmingham, UK
http://www.dioxin2008.org/

Fundamental Contaminant Chemistry
August 25, 2008
Oakland, CA
http://www.nwetc.org/chem-403a_08-08_oakland.htm

Applied Contaminant Chemistry and Transport in Soil and Groundwater
August 26-27, 2008
Oakland, CA
http://www.nwetc.org/chem-403b_08-08_oakland.htm

Monitored Natural Attenuation of Petroleum and Chlorinated Hydrocarbons in Soil and Groundwater
August 28-29, 2008
Oakland, CA
http://www.nwetc.org/ghyd-410_08-08_oakland.htm

Fifth Annual California Climate Change Conference
September 8-10, 2008
Sacramento, CA
http://www.climatechange.ca.gov/calendar/events/index.php?com=detail&eID=111&month=09&year=2008

Air Monitoring for Emergency Response
September 9-10, 2008
Baton Rouge, LA
http://www.trainex.org/offeringslist.cfm?courseid=439&all=yes

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AEG-2008 51st Annual Meeting
September 15-20, 2008
New Orleans, LA
http://www.aegweb.org/i4a/pages/Index.cfm?pageID=3836

Principles of Scientific Sampling for Environmental Professionals
September 16-18, 2008
Sacramento, CA
http://www.nwetc.org/stat-403_09-08_sacramento.htm

GRA Principles of Groundwater Flow & Transport Modeling Course
September 22-24, 2008
Redwood City, CA
http://www.grac.org/modeling.asp

Hazardous Materials Incident Response Operations
September 22-26, 2008
Edison, NJ
http://www.trainex.org/offeringslist.cfm?courseid=23&all=yes

Radiation Safety Classes (3 separate days)
- Overview for Environmental Professionals
- Practical Applications
- Advanced For Environmental Professionals
September 23-25, 2008
EPA Region 5, To be determined
http://www.trainex.org/offeringslist.cfm?courseid=182
http://www.trainex.org/offeringslist.cfm?courseid=183
http://www.trainex.org/offeringslist.cfm?courseid=184
Contact Sandra Jones or Stella Miller at 513-251-7776 or via e-mail at ertp-registrar@ttnus.com for more information.

Nanotech Northern Europe
September 23-25, 2008
Copenhagen
http://www.nanotech.net

GRA Introduction to Practical Statistics Workshop
September 24, 2008
Costa Mesa, CA
http://www.grac.org/stats.asp

GROUNDWATER RESOURCES ASSOCIATION of California
17th Annual Conference & Meeting - GROUNDWATER: Challenges to Meeting Our Future Needs
September 24-26, 2008
Costa Mesa, CA
http://www.grac.org/am08.asp

2008 NGWA/U.S. EPA Remediation of Abandoned Mine Lands Conference
October 2-3, 2008
Denver, CO
http://www.ngwa.org/DEVELOPMENT/conferences/details/0810025019.aspx

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Best Practices for Efficient Soil Sampling Designs
October 7, 2008
Richland, WA
http://www.trainex.org/offeringslist.cfm?courseid=573&all=yes

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Vapor Intrusion Pathway: A Practical Guideline
October 7-8, 2008
Portland, Oregon
http://www.itrcweb.org/crt.asp

EPA ETV and SBIR Programs Regional Technology Workshop
October 7-8, 2008
New York City
http://www.scgcorp.com/etvsbir08/

International Environmental Nanotechnology Conference: Applications and Implications
October 7-9, 2008
Chicago, IL
http://emsus.com/nanotechconf/index.htm

Best Practices for Efficient Soil Sampling Designs
October 9, 2008
Seattle, WA
http://www.trainex.org/offeringslist.cfm?courseid=573&all=yes

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GRA Applications of Optimization Techniques to Groundwater Projects Symposium
October 15-16, 2008
Sacramento, CA
http://www.grac.org/optimization.asp

Central and Eastern European Conference on Health and the Environment: The Environment--A Platform for Health
October 19-22, 2008
Cluj-Napoca, Romania
http://www.ceeche.org/

OSC 201
October 20-22, 2008
Chicago, IL
http://www.trainex.org/offeringslist.cfm?courseid=285&all=yes

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24th Annual International Conference on Soils, Sediments and Water Analysis, Site Assessment, Fate, Environmental and Human Risk Assessment, Remediation and Regulation
October 20-23, 2008
Amherst, MA
http://www.UMassSoils.com/

Best Practices for Efficient Soil Sampling Designs
October 22, 2008
Dallas, TX
http://www.trainex.org/offeringslist.cfm?courseid=573&all=yes

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ASTSWMO Annual Meeting
Oct 22-23, 2008
Baltimore, MD
Contact: Larry Zaragoza (703) 603-8867

2008 WRPPN Conference
October 22-24, 2008
Monterey, California
http://www.wrppn.org/confarchive/agenda07.cfm

Advanced Design Application and Data Analysis for Field XRF Instrumentation in Soil Matrices
October 23, 2008
Dallas, TX
http://www.trainex.org/offeringslist.cfm?courseid=521&all=yes

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11th Annual Florida Brownfields Conference
October 26-28, 2008
St. Pete Beach, FL
http://floridabrownfields.org/

Petroleum Hydrocarbons and Organic Chemicals in Ground Water: Prevention, Detection, and Remediation® Conference
November 3-4, 2008
Houston, TX
http://www.ngwa.org/DEVELOPMENT/conferences/details/0811035040.aspx

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GROUNDWATER RESOURCES ASSOCIATION of California - Emerging Contaminants 2008
November 19-20, 2008
San Jose, California
http://www.grac.org/contaminants.asp

SERDP AND ESTCP ANNUAL TECHNICAL SYMPOSIUM & WORKSHOP
December 2-4, 2008
Washington, D.C.
http://www.serdp-estcp.org/Symposium

Removal Process
December 2-5, 2008
Arlington, VA
http://www.trainex.org/offeringslist.cfm?courseid=45&all=yes

Remedial Process
December 2-5, 2008
Arlington, VA
http://www.trainex.org/offeringslist.cfm?courseid=52&all=yes

SBRP Annual Meeting
December 7-9, 2008
Asilomar Conference Grounds in Pacific Grove, CA
http://www.niehs.nih.gov/research/supported/sbrp/events/index.cfm

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US EPA Tech Support Project Meeting
Tentative dates: January 26-30, 2009
Location TBD (probably Florida)
For more info, contact Linda Fiedler at <fiedler.linda@epa.gov>

National Forum on Vapor Intrusion: Science, Technology and Policy
Tentative Dates: January 12-13, 2009
Philadelphia, PA
For more info, contact Mike Gill <gill.michael@epa.gov> or Bill Hagel <hagel.bill@epa.gov>

REMTEC
March 3-5, 2009
Atlanta, GA
http://www.RemTEC09.com

19th Annual AEHS Meeting & West Coast Conference on Soils, Sediments, and Water
March 9-12, 2009
San Diego, California
http://www.aehs.com/conferences/westcoast/

The 24th International Conference on Solid Waste Technology and Management
March 15 - 18, 2009
Philadelphia, PA
http://www.widener.edu/solid.waste

In Situ and On-Site Bioremediation - The 10th International Symposium
May 5-9, 2009
Baltimore, MD
http://www.battelle.org/conferences/bioremediation/

Micropol and Ecohazard 2009 - 6th IWA/GRA Specialized Conference on Assessment and Control of Micropollutants/Hazardous Substances in Water
June 8-10, 2009
San Francisco, CA
http://www.grac.org/micropol.asp

International Conference on the Environmental Implications and Applications of Nanotechnology
June 9-11, 2009
University of Massachusetts Amherst
http://www.umass.edu/tei/conferences/NanoConference/index.html

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Munitions Response and Operational Range Sustainability Conference
July 19-22, 2010
Reno, NV
http://www.battelle.org/conferences/range/

WEB PAGES

EUGRIS Corner

There are new documents posted all the time on EUGRIS, the platform for European contaminated soil and water information. More than 33 resources, events projects and news items were added to EUGRIS in June, 2008. These can be viewed at the following website: http://www.eugris.info/whatsnew.asp . Then select the appropriate month and year for the updates in which you are interested.

Updated Soil Remediation, Revitalization, and Reuse: Technical Performance Measures Internet-Based Tool

This tool is designed for site managers and their technical support teams to help assess whether soil amendments or other in situ technologies used for remediation, revitalization, or reuse of metal contaminated sites are functioning as designed. The TPM website is built on a searchable database containing availability, cost and level of standardization for the analytical tests. View at http://www.clu-in.org/products/tpm/ .

RECENT DOCUMENTS, DATABASES, ETC.

These entries are arranged alphabetically. Thanks to TechDirect, Tech Trends, NRMRL News, the ETV Program, DOE, DoD and others for posting their latest documents. And remember, many of these are available in paper format in the Region 9 library. Use your local library.....or it may disappear. It's happening at EPA.....

Assessing Arsenic Removal by Metal (Hydr)Oxide Adsorptive Media Using Rapid Small-Scale Column Tests
(http://www.epa.gov/nrmrl/pubs/600r08051/600r08051.pdf) (PDF) (62 pp, 938 KB) (EPA/600/R-08/051) April 2008

Breast cancer and exposure to hormonally active chemicals: An appraisal of the scientific evidence (2008)
http://www.chemicalshealthmonitor.org/IMG/pdf/Breast_cancer_and_exposure_to_hormonally_active_chemicals.pdf

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CIEH & CL:AIRE (2008) Guidance on Comparing Soil Contamination Data with a Critical Concentration
http://www.claire.co.uk/index.php?option=com_content&task=view&id=164&Itemid=28

The Definition of Waste: Development Industry Code of Practice (2008)
http://www.claire.co.uk/index.php?option=com_content&task=view&id=149&Itemid=28

Detailed Hydraulic Assessment Using a High-Resolution Piezocone Coupled to the GeoVIS
(April 2008, 360 pages)
http://www.clu-in.org/download/char/TR-2291-ENV.pdf

Emerging Contaminant Fact Sheets (2008)

1,2,3-Trichloropropane (TCP)
http://cluin.org/emergingcontaminants

N-Nitrosodimethylamine (NDMA)
http://cluin.org/download/contaminantfocus/epa542f07006.pdf

Tungsten
http://cluin.org/download/contaminantfocus/epa542f07005.pdf

Polybrominated Diphenyl Ethers (PBDE) and Polybrominated Biphenyls (PBB)
http://cluin.org/download/contaminantfocus/epa542f07007.pdf

Perchlorate
http://cluin.org/download/contaminantfocus/epa542f07003.pdf

1,4-Dioxane
http://cluin.org/download/contaminantfocus/epa542f07004.pdf

Engineering Forum Issue Paper: Online Hazardous Waste Cleanup Technical Resources
(EPA 542-F-08-003)
(April 2008, 12 pages)
http://www.epa.gov/tio/tsp/download/epa542f08003.pdf

EPA and the Venture Capital Community: Building Bridges to Commericalize Technology
(EPA 600-R-08-043)
(April 2008, 100 pages)
http://www.epa.gov/etop/pdf/venture_capital_study_rpt04152008.pdf

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FY 2007 Annual Report On The Underground Storage Tank Program
(EPA 510-R-08-001)
(April 2008, 8 pages)
http://www.epa.gov/oust/pubs/OUST_FY07_Annual_Report-_Final_4-08.pdf

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Green Remediation: Incorporating Sustainable Environmental Practices into Remediation of Contaminated Sites
(EPA 542-R-08-002)
(April 2008, 54 pages)
http://www.clu-in.org/download/remed/green-remediation-primer.pdf

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Incorporating Sustainable Practices into Site Remediation
(EPA 542-F-08-002)
(April 2008, 2 pages)
http://www.clu-in.org/download/remed/epa-542-f-08-002.pdf

2nd International Workshop on Remote Sensing of Emissions: New Technologies and Recent Work
(May 2008, 523 pages)
http://clu-in.org/techpubs.htm

June 2008 State Coalition for Remediation of Drycleaners Newsletter
http://www.drycleancoalition.org/download/news0608.pdf

"Leaching Behavior of Mineral Processing Waste: Comparison of Batch and Column Investigations"
Al-Abed, S.R., G. Jegadeesan, J. Purandare, and D. Allen. (2008). Edited by Choi, Fingas, Gardea-Torresdey, Lyberatos, and Tay.
Journal of Hazardous Materials
(http://www.sciencedirect.com/science/journal/03043894) Elsevier BV, Amsterdam, Netherlands, 153, 3: 1088-1092.

Quality in Land Remediation: Indicators and Protocols for Brownfield Land
http://www.claire.co.uk/index.php?option=com_docman&task=doc_download&gid=168&Itemid=25

Reduce, Reuse, and Recycle Construction and Demolition Materials at Land Revitalization Projects.
(June 2008, 8 pages)
http://www.epa.gov/epaoswer/non-hw/debris-new/pubs/brochure.pdf

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Remediation Technologies for Perchlorate Contamination in Water and Soil
(PERC-2)
(March 2008, 109 pages)
http://www.itrcweb.org/Documents/PERC-2.pdf

Report of the NICOLE / SAGTA Workshop: Sustainable Remediation 3rd March 2008, London, UK.
http://www.nicole.org/documents/stream.aspx?o=2&fn=NICOLE_Docs_203.pdf

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Research Bulletin 07 - Field Portable X-ray Fluorescence (FPXRF): A rapid and low cost alternative for measuring metals and metalloids in soils
http://www.claire.co.uk/index.php?option=com_content&task=view&id=167&Itemid=28

Secondary Model Procedure for the Development of Appropriate Soil Sampling Strategies for Land Contamination
http://publications.environment-agency.gov.uk/pdf/SP5-066-TR-e-e.pdf

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Smart Energy Resources Guide
(EPA 600-R-08-049)
(March 2008, 200 pages)
http://www.epa.gov/nrmrl/pubs/600r08049/600r08049.pdf

"SSOAP -- A USEPA Toolbox for SSO Analysis and Control Planning"
Vallabhaneni, S., F. Lai, C. Chan, E.H. Burgess, and R.I. Field. (2008).
In: Proceedings, EWRI 2008 World Environmental and Water Resources Congress (http://content.asce.org/conferences/ewri2008/), Honolulu, HI, May 13-16.

"Synthesis of Reactive Nano-Fe/Pd Bimetallic System-Impregnated Activated Carbon for the Simultaneous Adsorption and Dechlorination of PCBs"
Choi, H., S.R. Al-Abed, S. Agarwal, and D.D. Dionysiou. (2008). Edited by L.V. Interrante. 10.1021/cm8003613.
Chemistry of Materials (http://pubs.acs.org/cgi-bin/abstract.cgi/cmatex/2008/20/i11/abs/cm8003613.html) American Chemical Society, Washington, DC, 20, 11: 3649-3655.

Technical Protocol for Enhanced Anaerobic Bioremediation Using Permeable Mulch Biowalls and Bioreactors
(May 2008, 302 pages)
http://www.clu-in.org/download/techdrct/Final-Biowall-Protocol-05-08.pdf

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Technology News and Trends
(EPA 542-N-08-002)
(April 2008, 6 pages)
http://www.clu-in.org/download/newsltrs/tnandt0408.pdf

Technology News and Trends
(EPA 542-N-08-003)
(May 2008, 6 pages)
http://www.clu-in.org/download/newsltrs/tnandt0508.pdf

Technology News and Trends
(EPA 542-N-08-003)
(July 2008, 6 pages)
http://www.clu-in.org/download/newsltrs/tnandt0708.pdf

"The U.S.-German Bilateral Working Group: Collaborative Engineering and Scientific Research for a Sustainable Future. Results from Phase 3 (2000-2005) and Beginning Phase 4 (2006-2010)."
In: Proceedings, Revit and Cabernet 2007, 2nd International Conference on Managing Urban LandHauschild, M., D. Medearis, and A.M. Vega. (2007).
(http://www.revit-nweurope.org/media.php) (Please scroll to the bottom of the Web page to find the proceedings for this event.) Stuttgart, Germany, April 25-27.

Watershed Management Tool for Selection and Spatial Allocation of Nonpoint Source Pollution Control Practices
(http://www.epa.gov/nrmrl/pubs/600r08036/600r08036.pdf) (PDF) (104 pp, 1.77 MB)
(EPA/600/R-08/036) January 2007

Serious Scientists Gather 'Round. . .

EPA Scientists in the News

White House blocked EPA studies, GAO reports

http://www.sfgate.com/cgi-bin/article.cgi?f=/c/a/2008/04/30/MN9A10DOR1.DTL
(From San Francisco Chronicle...4/30/08)

A congressional watchdog agency has found that White House officials repeatedly intervened in the government's scientific process for assessing the health risks of toxic chemicals, prompting Sen. Barbara Boxer to threaten giving Congress control of the program. The Government Accountability Office reported Tuesday that the White House's budget office, the Pentagon and other agencies had delayed or blocked efforts by the Environmental Protection Agency to list chemicals as carcinogens by requesting more research or more time to review the risks. (For more, click on article link.)

SURVEY SHOWS EPA SCIENTISTS INTIMIDATED BY BUSH POLITICAL APPOINTEES

(From the Environmental Business Journal, http://www.ebiusa.com/)

Hundreds of scientists working for the U.S. Environmental Protection Agency (EPA) claim that they have experienced political interference with their work, often in the form of directions to exclude certain information from their reports or in modifications and misrepresentations of the reports themselves, according to a recent survey by the Union of Concerned Scientists (UCS; www.ucsusa.org). A total of 1,586 EPA staff scientists responded to an on-line UCS questionnaire, and of these, 889 said that they have faced some type of political interference with their work over the past five years. In the survey, EPA scientists reported a low level of morale at the agency and often pointed to senior EPA managers and the White House Office of Management and Budget (OMB) as the leading culprits in the political manipulation of their work. An EPA spokesman described the apparent discontent among agency scientists as a by-product of their passion for their work, but UCS's Francesca Grifo said that the survey results show "an agency in crisis" and "under siege from political pressures." Representative Henry Waxman (D-Calif.) said in a letter to EPA Administrator Stephen Johnson that the UCS survey results were disturbing, and that he plans to investigate the allegations of political interference in an upcoming hearing of his Oversight and Government Reform Committee.

Disclaimer

This quarterly newsletter publication is meant to be used for information only. It does not represent the opinion of the management of the regional or national offices of EPA, only that of the author. The accuracy of the information contained herein is not guaranteed, only desired. If corrections are necessary, please contact the author. Thanks again to all of my information resources, which include EPA's OSRTI (formerly TIO), ORD (including ETV and NRMRL News) and Region 1's CEIT.

Thanks for reading it! Comments and suggestions are appreciated. If you wish to be added to or deleted from this list, please send me an email. (gill.michael@epa.gov)

Newsletter archives can be found on the EPA intranet site.....http://www.epa.gov/osp/hstl/hstlnewsletter.htm

A number of environmental technology web resources can be found here.....http://www.epa.gov/region09/waste/techlinks/

And don't forget the "STL" website.....http://www.epa.gov/osp/hstl.htm

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